

WHAT IS CLAIMED IS:

Sub 3
1. A heat-sensitive lithographic printing plate precursor comprising a substrate having ink-receptive surface or coated with an ink-receptive layer having provided thereon a hydrophilic layer which comprises:

(1) a colloid of an oxide or a hydroxide of at least one element selected from the group consisting of beryllium, magnesium, aluminum, silicon, titanium, boron, germanium, tin, zirconium, iron, vanadium, antimony, and transition metals,

(2) a hydrophilic resin, and

(3) a light-to-heat conversion material.

2. The heat-sensitive lithographic printing plate precursor as claimed in claim 1, wherein the proportion of the hydrophilic resin is from 0.1 to 30 wt% of the solid content in the hydrophilic layer.

3. The heat-sensitive lithographic printing plate precursor as claimed in claim 1, wherein the hydrophilic resin is a high molecular compound having a hydroxyl group or a carboxyl group.

4. The heat-sensitive lithographic printing plate precursor as claimed in claim 1, wherein the hydrophilic resin is a homopolymer or a copolymer of hydroxyalkyl acrylate or hydroxyalkyl methacrylate.

5. The heat-sensitive lithographic printing plate precursor as claimed in claim 1, wherein the colloid is a sol comprising a hydrolysis and condensation product of at least one compound selected from the group consisting of tri- and/or tetraalkoxysilane, tetraalkoxy aluminum, tetraalkoxy titanium and tetraalkoxy zirconium.

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